AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently Amended) A method of adjusting temperature of a machining liquid after use [[for]] in machining a ~~work-piece~~ workpiece, comprising ~~the steps~~ of:

constructing a ceramic heat exchanging tube such that metal ions do not solve out from the ceramic heat exchanging tube upon contact between the machining liquid and the ceramic heat exchanging tube, said constructing including baking a tube including silicon carbide (SiC) to form the ceramic heat exchanging tube, wherein the ceramic heat exchanging tube does not include boron;

feeding the machining liquid and a liquid for adjusting temperature of the machining liquid to [[a]] the heat exchanger having [[a]] the ceramic heat exchanging tube ~~and in which~~ such that both the liquids are separated and the machining liquid contacts the ceramic heat exchanging tube; and

adjusting the temperature of the machining liquid to a prescribed temperature by means of supplying the liquid for adjusting temperature [[; and]]

~~constructing~~ to a vicinity of the ceramic heat exchanging tube ~~such that metal ions do not solve out from the ceramic heat exchanging tube upon contact between the machining liquid and the ceramic heat exchanging tube, said~~

~~constructing step comprising the step of baking a tube including silicon carbide (SiC) to form the heat exchanging tube.~~

2. (Original) The method according to claim 1, wherein both liquids flow in the heat exchanger as countercurrents.

3. (Cancelled)

4. (Original) The method according to claim 1, wherein the machining liquid passes through the ceramic heat exchanging tube

5. (Original) The method according to claim 1, wherein the heat exchanger further includes an outer tube covering the ceramic heat exchanging tube.

6. (Currently Amended) A [[The]] method ~~according to claim 1;~~ of adjusting temperature of a machining liquid after use in machining a workpiece, comprising:

constructing a ceramic heat exchanging tube such that metal ions do not solve out from the ceramic heat exchanging tube upon contact between the machining liquid and the ceramic heat exchanging tube, said constructing including baking a tube including silicon carbide (SiC) to form the ceramic heat exchanging

tube, wherein the ceramic heat exchanging tube is made by baking silicon carbide (SiC) and resin only;

feeding the machining liquid and a liquid for adjusting temperature of the machining liquid to the heat exchanger having the ceramic heat exchanging tube such that both the liquids are separated and the machining liquid contacts the ceramic heat exchanging tube; and

adjusting the temperature of the machining liquid to a prescribed temperature by means of supplying the liquid for adjusting temperature to a vicinity of the ceramic heat exchanger tube.

7. (Currently Amended) The method according to claim 1, wherein the machining liquid is slurry for abrading or cutting the ~~work-piece~~ workpiece.

8. (Currently Amended) The method according to claim 1, wherein said feeding comprises ~~further comprising the step of~~ directing the machining liquid in a first direction through the ceramic heat exchanging tube and directing the liquid for adjusting temperature in a second direction opposite to the first direction over the ceramic heat exchanging tube.

9. (Currently Amended) The method according to claim 1, wherein the heat exchanger further includes inlets and outlets for the machining liquid and the

liquid for adjusting temperature, further comprising ~~the step of~~ arranging the inlets and outlets such that the machining liquid and the liquid for adjusting temperature flow as countercurrents.

10. (Currently Amended) The method according to claim 1, ~~further comprising the step of~~ wherein said feeding comprises directing the machining liquid into contact with an inner circumferential surface of the ceramic heat exchanging tube.

11. (Currently Amended) A [[The]] method ~~according to claim 1, wherein said constructing step comprises the step of~~ of adjusting temperature of a machining liquid after use in machining a workpiece, comprising:

constructing a ceramic heat exchanging tube such that metal ions do not solve out from the ceramic heat exchanging tube upon contact between the machining liquid and the ceramic heat exchanging tube, said constructing including forming [[the]] a tube without boron and including silicon carbide (SiC) and baking the tube to form the ceramic heat exchanging tube;

feeding the machining liquid and a liquid for adjusting temperature of the machining liquid to the heat exchanger having the ceramic heat exchanging tube and in which both liquids are separated and the machining liquid contacts the ceramic heat exchanging tube; and

adjusting the temperature of the machining liquid to a prescribed temperature by means of supplying the liquid for adjusting temperature to a vicinity of the ceramic heat exchanger tube.

12. (Currently Amended) A [[The]] method ~~according to claim 1, wherein said constructing step comprises the step of~~ of adjusting temperature of a machining liquid after use in machining a workpiece, comprising:

constructing a ceramic heat exchanging tube such that metal ions do not solve out from the ceramic heat exchanging tube upon contact between the machining liquid and the ceramic heat exchanging tube, said constructing including forming the ceramic heat exchanging tube from only silicon carbide and resin and baking the tube including the silicon carbide (SiC) to form the ceramic heat exchanging tube,

feeding the machining liquid and a liquid for adjusting temperature of the machining liquid to the heat exchanger having the ceramic heat exchanging tube and in which both liquids are separated and the machining liquid contacts the ceramic heat exchanging tube; and

adjusting the temperature of the machining liquid to a prescribed temperature by means of supplying the liquid for adjusting temperature to a vicinity of the ceramic heat exchanger tube.

13. (Cancelled)

14. (New) The method according to claim 6, wherein both liquids flow in the heat exchanger as countercurrents.

15. (New) The method according to claim 6, wherein the heat exchanger further includes an outer tube covering the ceramic heat exchanging tube.

16. (New) The method according to claim 6, wherein said feeding comprises directing the machining liquid in a first direction through the ceramic heat exchanging tube and directing the liquid for adjusting temperature in a second direction opposite to the first direction over the ceramic heat exchanging tube.

17. (New) The method according to claim 6, wherein the heat exchanger further includes inlets and outlets for the machining liquid and the liquid for adjusting temperature, further comprising arranging the inlets and outlets such that the machining liquid and the liquid for adjusting temperature flow as countercurrents.

18. (New) The method according to claim 6, wherein said feeding comprises directing the machining liquid into contact with an inner circumferential surface of the ceramic heat exchanging tube.

19. (New) The method according to claim 11, wherein the heat exchanger further includes an outer tube covering the ceramic heat exchanging tube.

20. (New) The method according to claim 11, wherein said feeding comprises directing the machining liquid in a first direction through the ceramic heat exchanging tube and directing the liquid for adjusting temperature in a second direction opposite to the first direction over the ceramic heat exchanging tube.

21. (New) The method according to claim 11, wherein the heat exchanger further includes inlets and outlets for the machining liquid and the liquid for adjusting temperature, further comprising arranging the inlets and outlets such that the machining liquid and the liquid for adjusting temperature flow as countercurrents.

22. (New) The method according to claim 11, wherein said feeding comprises directing the machining liquid into contact with an inner circumferential surface of the ceramic heat exchanging tube.